Water & Sewage Works

Index, Vol. 101, January-December, 1954

NUMBER	PAGES
January	1— 44
February	45— 94
March	95—138
April	139—196
May	197—248
June	249—292

NOTE!

1—For Index to Reference and Data Material, see May 1954 Issue, Page R-280.

2—Entries preceded by asterisk (*) appear in meeting reports.

3—Reports on conventions are listed only under "Conventions and Meetings."

4—See "Geographical Locations" for references to cities, towns and countries.

5—Page numbers followed by A are in Advt. Section.

NUMBER	PAGES
July	293—332
August	333—378
September	379—422
October	423—472
November	473—516
December	517—560

A

Activated Aeration *184
Activated Sludge:
  Activated Aeration *184
  British Plant 245
  Research *280
  Treatment 288
Aeration Systems, Oxygen Transfer in *92
Aerobic Oxidation—Magnetic Oxygen Analyzer 81
Aldrich PeriFilter 249
Algae:
  Actinomycetes 208
  Radioactive Waste, Treatment of 260
Allentown, Pa., New Filtration Plant 139
Anaerobic Digestion:
  Sludge (See Sludge Digestion)
  Liming Effects *41
Analytical Methods:
  Chlorine, Residual, by Neutral Ortho-Tolidine 74
  Oxygen Uptake—Magnetic Oxygen Analyzer 81
  B.O.D.—O.C.D. Relationship 362
  Turbidimetric Sulfate Determination 462
  Water Filtrability Test 517
Annual Reports:
  Ohio River Valley Water Sanitation Comm. ..... Jan. 99A
  Reviews of 1953—Sewage and Industrial Wastes 45
  Water Supply 1
Appointments & Elections:
  Andress, Geo. W. Heads N. J. Water Dept. 489
  Aultman, W. W.—to Alvord, Burdick & Howson 499
  Besselievre—to Kaighin & Hughes 499
  Black, Dr. A. P.—Head Fla.'s Bur. of Water Research 355
  Cox, C. R.—San. Engr. in Brazil 263
  Dunlap, Edward—Secy., Middlesex County Sew. Auth. 179
  Faber, H. A.—Managing Editor, Water & Sewage Works 299
  Finney, J. Wiley—Associate of Howard Bell 506
  Fleet, G. A.—Mfr's. Representative 207
  Friel, Francis—Vice Pres. Am. In. Con. Engrs. 146
  Griffin, Guy E.—Dep. Pub. Wks. Comm., Westchester Co., N. Y. 93
  Gould, R. H.—Joins Greeley & Hansen 113
  Haney, Paul D.—Joins Black & Veatch 465
  Havens and Emerson change Organization 119
  Hitzrot, Henry W.—Federal Water and Sewerage Industries and Utilities Division 184
  Kittrell, F. W.—Joins Fred. B. Stevens, Inc. 27
  Langworthy, V. W.—Joins B-I-F 465
  Louis, Leo—V. P. & Genl. Mgr., Gary-Hobart Water Co. 385
  Mason, Karl M. to Head Pa. Health Dept. San. Eng. 375
  Miller, "Wally"—Cast Iron Pipe Assn. 444
  Powers, T. J.—P. H. S. Pollution Advisory Board ..... July 82A
  Schiesswohl, D. P.—FS&IWA Exec. Asst. 431
  Seid, Sol—N. J. S. & I. W. A. Representative 323
  Showell, Ed.—Consulting Service 188
  Streeter, Dr. Victor—at Univ. of Michigan 511
  Symons, Geo. E.—N. Y. U. Appoints, as Research Associate 332
Awards & Honors:
  Bunetta, Salvatore—Cited for Heroism 122
  Cleary, Edw. J.—Award of San. Eng. Assn. 421
  Cunningham, M. B.—So.west Section Award 27
  Donaldson, Wellington—Memphis Achievement Citation 238
  Gould, R. H.—A.S.C.S. Citation 274
  Imhoff, Karl—Decorated 43
  Maffitt, Dale—Receives Governor's Plaque 346
  Mebus, George—APWA Distinguished Service Award 263
  Powell, Sheppard—Hon. Memb., ASME 22
A.W.W.A. (Also see Conventions):
  Board Action 120
  Membership Secretary *68
  Program 157

B

Barthel, Josy—Harvard San. Engr. and Athlete 127
Bathing Places, Report on 324
Bearing Nomogram 59
Biological Sewage Treatment, History of 28
B.O.D.-O.C.D. Relationship in Treated Ind. Effluent 362
Book Reviews (Also see Publications):
  "Fresh Water from the Ocean" ..... June 84A
  Operation of Water Facilities ..... June 84A
British Sanitarian in U. S. 260
Bulk Storage of Chlorine 60

C

CAL Engineers Formed 285
Cartoons ..... Jan. 100A, 93, Feb. 94A, 137, Mar. 85A, 179, 192, 220, 270, July 82A, 375, Sept. 102A
Central Dispatching Station in Water Works 197
Central N. Y. Operators Assn. Formed 146
Centrifugal Pump Performance 258
Centrifugal Pumps—Designing, Constructing and Maintaining 347, 437, 536
Chemical Feeder Puzzlers 254
Chemical Treatment for Weeds in Sludge Beds 284
Chlorination:
  Bulk Storage 60
  Containers, Ton 20
  Dosage Control 36
  Handling Principles 36
  Main Disinfection 143
  Principles of Chlorine Gas Feeders 450
  Sierra Madre, Calif., Adopts 410
Chlorine (Also see Chlorination):
  More About "Quick Chlorine Dioxide" 450
  Principles of Chlorine Gas Feeders 450
  Residual Determination 74
  Residual Recorder *233
  Viruses and Bacteria, Effects on *13
Charts for Selecting Main Line Meters 150
Chemical Cleaning of Wells 293
Cities (See Geographical Locations)
Civil Defense *145
Cloud Seeding 107, 192
Construction (See Geographical Locations)

Vol. 102, No. 1, Section 2
(Section 1 is the Jan. 1955 Magazine.)

Commentary:
History of Biological Sewage Treatment ... 28
There is Work to be Done ... 147
Complete Waterworks in a Tower ... 330
Control of Water Quality from Waterbeds ... 312
Conventions & Meetings:
Arkansas 23rd Wat. & Sew. Conf. ... 241
Assn. Cons. Chem. & Chem. Engrs. ... 184
A.W.W.A. Seattle Conference 1954 ... 300, 338, 386
Chesapeake Sect. AWWA ... 110
Fla. Sect. A.W.W.A.—Miami ... 64
F.S.&I.W.A.—26th Meeting—
Part II ... 31
Part III ... 89
F.S.&I.W.A.—27th Annual ... 323
F.S.&I.W.A. Technical Program ... 411
Maine Water Utilities ... 144
Maine Water Utilities Assoc. ... 315
New England S&IWA—24th Meeting ... 40
N.E.W.W.A. 72nd Convention ... 8
N.E.W.W.A. Holds 73rd Convention ... 539
N.J.S.I.W.A.—39th Meeting ... 230
NYSIWA—26th Meeting ... 180
Spring Meeting in Syracuse ... 404
Southern Industrial Wastes Conf. ... 19
Southern Waste Conference—3rd ... 278
Water & Sewage Conf.—State College, Pa. ... 546
Conversion Factors
(Also see Nomograms)
Corrections:
ACS Monograph 118—Ind. Wastes ... 146
Dore, Sanley is New Yorker—Jan. '54 ... 119
Photo: Jones, E. M., July 304 ... 346
To Page 26—Yield of Wells ... 270
To Page 65—Florida Fuller Award ... 188
To Page 79—Wash Water Measurement ... 184
To Page 187—Credit to the Illustration ... 274
To Page 233—Eigenrauch Not a Programmer ... June 84A
Corrosion:
Short Course—Washington State College ... 19

D

Dear Bill Letter:
About Salaries—More or Less ... 196
Meter Test Program May Surprise You ... 422
Now, About 100 Per Cent Metering ... 292
Sewage Research ... 138
Sewage Works Equipment ... 471
Should We Own and Maintain House Service Lines? ... 248
Water Rates ... 94
Deaths:
Hegarty, Maurice V. ... 88
Leach, Walter J. ... 146
McCarthy, J. J. ... 119
Morey, David, Jr. ... 298
Purdy, W. C. ... 382
Rudgal, H. T. ... 235
Stokes, D. B. ... Mar. 86A
Trees, Merle J.—CB&I Chairman ... 429
Van Norman, H. A. ... 119
Dedication to Chester Morse ... 221
Desalting Sea Water ... *67
Design:
Centrifugal Pumps ... 347
Distribution Sys. in Arctic ... 333
Pittsburgh's Treatment Plant ... 236
Remodeling an Old Filter Plant ... 524
Detergents ... 330
Detergents and Water Purification ... 80
Detergent Situation Abroad ... 135
Design Criteria—Part 1 ... 222
Design of Water Distribution Sys. in Arctic ... 333
Developments in 1953:
Sewage and Ind. Wastes ... 45
Water Supply ... 1
Digestion:
Digester Operation Problems ... 559
Disinfection:
Main ... 143
Distribution System:
Carrying Capacity, Loss of ... *145
Design of . . . in Arctic ... 333
Freezing as Shut-off Measure ... 261
Leakage ... 208
Main Extension Policy ... *67
Pitometer Surveys ... 208
Sand, Flushing ... 114
Service Lines ... 248
Tastes and Odors, Newer Concepts ... 208
Dorreo Aldrich PeriFilter System ... 249
Double Filtration, Alternating ... 245
Dry Weather Flow, Measurement of ... 326

E

Editorials:
Engineering Economics in Sewage Treatment Practice ... 44
Fluoridation Upheld in Milwaukee Test Case ... 472
More Babies—More Water Needed ... 472
Short School Expenses Deductible from Income Tax ... 44
Effluent Disposal, Wastes as Factor in ... 172
Electronic Tester for Large Meters ... 533
Engineering Journal Readings ... Jan. 98A
Equipment and Material:
Abrasive Cut-off Saw—Wallace Supplies Mfg. Co. ... Sept. 110A
Adhesive for Bonding Rubber Gaskets—Rubber & Asbestos Corp. ... July 86A
Airlock Feeder Rotary—Prater Pulverizer Co. ... July 102A
Auto Central Filter Control—Builders-Providence, Inc. ... Sept. 106A
Automatic Control Valve—Cla-Val Co. ... Nov. 98A
Automatic Knife Pipe Cutters—Beaver Pipe Tools, Inc. ... Oct. 111A
Backflow Preventers—Backflow Engineering & Equipment Co. ... July 98A
Ball Valves—S. Morgan Smith Co. ... July 100A
Bearing Compound—Chemical & Power Products, Inc. ... Oct. 106A
Blow Torch—Perfection Stove Co. ... Feb. 108A
Boring and Tunneling Machine—Multi-Matic Corp. ... Oct. 109A
Calculator, Pipe Enamel Quantity—Reilly Tar & Chemical Co. ... Jan. 105A
Channel Pipe, "Chemi-Drain"—The Logan Clay Products Co. ... June 96A
Chemical Feed System—Philadelphia Pump and Mach. Co. ... July 84A
Chemical Feeder—Fischer and Porter Co. ... Mar. 92A
Chlorinator—Fischer & Porter Co. ... Feb. 95A
Chlorinator—Wallace & Tiernan ... May 98A
Control Dial, Automatic Short Operation—Tork Clock Co. ... Jan. 108A
Control Panel—O. Donnell Corp. ... Apr. 112A
Corrosion, Rust-Resistant Winch-Hoist—Lug-All Co. ... Oct. 106A
Couplings, Aluminum—Gustin-Bacon Mfg. Co. ... June 96A
Device for Fluid Mensurement, "Dall Flow Tube"—Builders-Providence, Inc. ... Aug. 98A
Diaphragm Pumps—Rice Pump & Machine Co. ... Aug. 106A
Direct-Reading Dissolved Oxygen Analyzer—Dorber Co. ... Aug. 105A
D.O. and O., Uptake Device—General Laboratory Supply Co. ... July 100A
Double Duty Pumps—Jacuzzi Bros., Inc. ... Oct. 110A
Drafting Device—Pickett & Eckel Co. ... July 88A
Drawing Board, Portable—Graphostat Co. ... Jan. 105A
Dust Collectors—Wallace & Tiernan Co. ... Mar. 101A
"Electronic Witch" M-Scope Pipe Finder—Fisher Research Lab. ... Aug. 103A
Field Test for Water Hardness—Calgon, Inc. ... Oct. 110A
Filter, Nuclear Liquid—Atomic Energy Waste Disposal Service ... Apr. 120A
Filter, Tray Belt Vacuum—Hardinge Co., Inc. ... Feb. 98A
Filter, Water—Marvel Engr. Co. ... Mar. 102A
Fitting, Plastic Clamp for Insert—Carlon Products Co. ... Feb. 102A
Fume Hood—Fisher Scientific Co. ... Mar. 88A
Generator, Portable Engine—The Wincharger Corp. ... Jan. 108A
Gooseneck Boom for Pitman Crane—Pitman Mfg. Co. ... Oct. 112A
Gripper Dog for Pipe Puller and Pusher—Trojan Mfg. Co. ... Oct. 112A
Heavy Duty Pipe Cutter—Toledo Pipe Threading Machine Co. ... Sept. 109A
High & Low Flow Alarm—Brooks Rotameter Co. ... Nov. 92A
High-Rate Package Water Tr. Plant—Graver Water Conditioning Co. ... Sept. 108A
High Speed Diversion Valve—Kieley & Mueller, Inc. ... Aug. 101A
Hood, Dust, for Personnel—General Scientific Equipment Co. ... Jan. 106A
Hydro-Softener—The Dorr Co. ... May 96A
Improved Diesels—P & H Diesel Engine Div. ... Oct. 110A
Indicator, Moving Scale—Fischer & Porter Co. ... Apr. 108A
Lab Unit for King-size Glassware—Fisher Scientific Co. ... Aug. 100A
Level Controls, Liquid—Ferrara, Inc. ... Mar. 90A
Photoswitch, Inc. ... Oct. 106A
Liquid Level Indicator—Bogue Electric Manufacturing Co. ... May 118A
Loader and Backhoe Attachments—Ottawa Steel Prod., Inc. ... Nov. 95A
Magnet, Pocket-sized—Eriez Mfg. Co. ... Apr. 98A
Metagraphic Instruments—Bristol Co. ... Oct. 108A
"Metaphone"—Bristol Co. ... Apr. 96A
Meter Housing—Ford Meter Box Co. ... June 98A
Meter, Irrigation and Line—Hersey Mfg. Co. ... Mar. 88A
Meter, Mechanical Flow—Penn Industrial Instrument Co. ... July 94A
Meter Shelves—Morrison Steel Products, Inc. ... Aug. 104A
Meter Signal Transmitter—Hagan Corp. ... July 96A
Methyl Purple Titration Indicator—Fleisher Chem. Co. ... Sept. 104A
Motors—A. O. Smith Corp. ... May 110A
Motor—U. S. Electrical Motors, Inc. ... June 94A
Motor, Syncrogear—U. S. Electrical Motors, Inc. ... Jan. 104A
Multiple Surface Filters—Micro Metallic Corp. ... May 94A
Neon-Effect Signs—Uni-Ventions Co. ... July 90A
Nylon Cloth for Rotary Filters—Filtration Engrs., Inc. ... Aug. 102A
Odor, Fly, Rat Control—Stewart-Hall Chem. Corp. ... Sept. 104A
Outriggers—Pitman Mfg. Co. ... June 102A
Paint, Waterproof—Monroe Co., Inc. ... Feb. 102A
Perifilter System, Dorreo Aldrich—Dorr Co. ... Apr. 124A
Pipe and Fittings for Chlorine—Colonial Plastics Mfg. Co. ... May 124A
Pipe, "Armored Joint"—Universal Concrete Pipe Co. ... Jan. 101A
Pipe Insulation—Owens-Corning Fiberglass Corp. ... May 120A
Pipe, "Screw Seal" Clay—Robinson Clay Prod. Co. ... July 88A

Pipe Threader—Ridge Tool Co. ..... May 98A
Pipe Tool Power Drive—Toledo Pipe Threading Machine Co. ..... Jan. 110A
Pipe Welding—Stone & Webster Engr. Corp. ..... June 88A
Pipe Wrenches—Toledo Pipe Threading Machine Co. ..... June 100A
Plug Valves, 10"-12"—Hamer Oil Tool Co. ..... Aug. 101A
Pneumatic Sewage Ejector—Yeomans Bros. Co. ..... Aug. 107A
Portable Automatic Pipe Saw—Prescott & Sons ..... Nov. 95A
Portable Metal Band Saw—Porter-Cable Machine Co. ..... Aug. 99A
Portable Power Drive—Ridge Tool Co. ..... Sept. 106A
Portable Power Pipe Saw—E. H. Wachs Co. ..... Sept. 106A
Pots and Torches, L-P—Turner Brass Works ..... Feb. 112A
Pressure Gage-Pneumatic Transmitter—Penn Ind. Instrument Corp. ..... Nov. 94A
Proportioner, Automatic, for Chlorinators—Fischer & Porter Co. ..... June 94A
Protective Coating—Atlas Mineral Prod. Co. ..... Sept. 109A
Pump, Acid Proof Sump—Galigher Co. ..... Mar. 96A
Pumps, Portable—Jacuzzi Bros., Inc. ..... May 108A
Pump, Portable—Kenco Pump Co. ..... Mar. 106A
Pump, Submersible—Kenco, Inc. ..... June 90A
Recorder, Minature—Fischer & Porter Co. ..... Jan. 103A
Reodorants for Odor Abatement—Rhodia, Inc. ..... Nov. 92A
Reservoir Wall Compacting Unit—Tyrrell & Davis Co. ..... Apr. 94A
Rid-X Chemical for Septic Tanks—d-Con Co. ..... Feb. 104A
Rolatape Handle—Rolatape, Inc. ..... Feb. 106A
Roto-Rake Sedimentation-Basin—Graver Water Cond. Co. ..... Nov. 94A
Rust Preventive—Octagon Process, Inc. ..... Apr. 122A
Sampler, Automatic Effluent—Compact Air Samplers ..... Jan. 102A
Seal, Grease—Zimmer and Francescon ..... Mar. 92A
Self-Priming Pumps—Universal Mfg. Co. ..... Oct. 108A
Semi-Steel Valve—Rockwell Mfg. Co. ..... May 114A
Sewer Joint Packing—Presstite Engineering Co. ..... May 112A
Sewerking—O'Brien Mfg. Co. ..... Nov. 92A
Silactor—Wallace & Tiernan ..... May 110A
Sludge Disintegrator—Royer Fdy. & Mach. Co. ..... Feb. 100A
Sludge Thickening—The Dorr Co. ..... June 100A
Small Control Drive—Bailey Meter Co. ..... Sept. 110A
Spatula, Vibrating—Fisher Scientific Co. ..... July 92A
Speed-Grip Chuck—Ridge Tool Co. ..... Nov. 96A
Speed Reducer, Shaft Mounted—Falk Corp. ..... Apr. 126A
"Spirol-Mix" Flocculator—Graver Water Conditioning Co. ..... Aug. 106A
Steam, AirExhaust Silencers—Burgess-Manning Co. ..... Nov. 96A
Steam Cleaners—Homestead Valve Mfg. Co. ..... Aug. 102A
Tampers—Worthington Corp. ..... Oct. 106A
Tapping Sleeve for Cement-Asbestos Pipe—Corey Mfg. Co. ..... Apr. 120A
TEFC, Explosion-Proof Motors—U. S. Elect. Motors, Inc. ..... Sept. 108A
Template, Pipe Fitting—Graphic Indicator Co. ..... Feb. 114A
Threading Machine, Portable—Oster Mfg. Co. ..... Apr. 110A
Tool Box, Portable Trailer—Aeroil Products Co. ..... Mar. 98A
Tractor Mounted Trencher—Earth Equipment Corp. ..... Aug. 107A
Trencher, Universal—Heller Engineering & Mfg. Co. ..... Jan. 109A
Trenchmobile—Parsons Co. ..... June 98A
Tristand Pipe Vise—Ridge Tool Co. ..... Nov. 92A
Tubing, Ace-Flex—American Hard Rubber Co. ..... June 92A
Tunnel System—Lamar Pipe and Tile Co. ..... Mar. 103A
Two-Way Clean-Out Fitting—Cannelton Sewer Pipe Co. ..... Nov. 98A
Valve, Control—Conoflow Corp. ..... Mar. 94A
Valve, Controlled Closing ..... Apr. 106A
Venturi Tube, Minature—Simplex Valve & Meter Co. ..... Feb. 98A
Water-Dispersible Chlorobenzene—Solvay Process Div. ..... Sept. 108A
Wellpoint, "Freeflow"—Foundation Equip. Corp. ..... Apr. 112A
Equipment and Material, Waterworks *112

F

Fairbanks-Morse—Pump Plant Dedication 308
Fed. Sew. & Ind. Wastes Assn.:
Membership for Industrial Technologists *182
Fertilizer, Vitamin B-12 from 134
Filmstrips for Training 241
Filter Bottoms *112
Filters:
Bottoms *112
Operation and Loss of Head Meters 159
Wash Water Measurement 78
Water Filtrability Test 517
Filter Cloth Cleaning 239
Finances:
Cost to Properly Water a Lawn 470
Financing Municipal Sewerage 430
Main Extension Costs Down 326
Meter Maintenance to Increase Revenue 521
Treatment Works 327
When it Pays to Replace a Pump 442
Flotation and Sedimentation 128
Flow Measurement 395
Flow Measurement Device 326
Flow Measurement in Sewage Works *181
Fluoridation:
Milwaukee Test Case 472
How Baltimore Fluoridates 473
Osawatomie, Kansas—1000th City to Adopt 449
Panel Review *66
Record, Automatic *13
Sheboygan, Wis., Results 63
Formula for Runoff 275
Freezing Cast Iron Mains 261

G

Geographical Locations:
Allentown, Pa.—New Water Plant 139
Arctic—Water Distrib. Systems 333
Atlanta, Ga.—Central Dispatching System 197
Auckland, New Zealand—Retains Panel of Experts ..... May 90A
Sewage and IW 346
Follows recommendations of Overseas Sewerage Experts 394
Augusta, Georgia—Pinetree Pipeline 226
Baltimore—Fluoridation 473
Baltimore, Md., Future Water Supply *110
Baltimore, Md.—Susquehanna River Proposed Supply ..... Apr. 94A
Bayonne, N. J.—Sewage Project Accidents 179
Bayonne, N. J.—Water and Sewer Charges 220
Bellaire, Ohio—River Intake 108
Brooklawn, N. J.—Sludge Bed Plastic Glassover 161
California—Dept. of Water Resources 192
Cedarburg, Wis.—Rate Reduction 59
Chicago Suburbs—Water Supply Plan 195
Cincinnati—Advanced Training Courses 429
Cincinnati, O.—New Sewage Plant 423
Cleveland, Ohio—Water Intake Crib 264
Sewage Disposal on 470
Industrial Waste Problem 429
Dalecarlia, Wash.—New Pumping Station ..... May 90A
Dallas, Tex.—Water Dept. Business Manager 221
Dallas-Fort Worth, Tex.—Joint Action on Water Supply 270
Dayton, Ohio—Softening Plant 96
Germany—Sewage Treatment Progress 176
Hagerstown, Md.—Syndets in Sewage 286
Hampton Roads, Va.—Waste Gas Burner 76
Havana—Water Supply *65
Houston—Filtration Plant 346
Indianapolis, Ind.—New Facilities 235
Israel—Water Supply Line 207
7 Rotovalves for Water Supply 872
Sewage Treatment 600 ft. below Sea-level 408
Kansas-Missouri—Two State Sewer District 238
Kansas City, Kansas—F-M Pump Plant Dedicated 308
Korea—Water Supply for Field Forces 218
Lawrence, Mass.—Expt. Station *12, 361
Linden-Roselle, N. J.—Primary Plant *230
Cincinnati, O.—Little Miami Sewage Plant 423
Little Rock, Ark.—Water Pipes Freeze 93
Los Angeles, Calif.—500,000th Water Meter 127
Los Angeles, Calif.—Hyperion Plant 202
Los Angeles, Calif.—Sewage Disposal Plan 175
Los Angeles, Calif.—Water Rates 221
Los Angeles, Calif.—Water Rates ..... Feb. 92A
Manitowac, Wis., Combines W&S Utilities 441
Marion, Ill.—Award for Sew. Wks. Operation 263
Middlesex, N. J.—Sewer Authority Secy. 179
Midland, Texas—New Water Supply 351
Milwaukee—Vitamin B-12 from Milorganite 134
Milwaukee, Wis.—Water Service Ruling 263
Minneapolis, Minn.—Meter Purchase 220
N. J.—Operator's License Exam. 459
New York—Quest for Water *12
Olathe, Kansas—Water Train 169
Osawatomie, Kansas—Adopts Fluoridation 449
Phillipsburgh, N. J.—Water Rates ..... Feb. 92A
Pinellas Co., Fla.—Water Supply *66
Pittsburgh, Pa.—Pollution Abatement Campaign 179
Pittsburgh, Pa.—Sewage Plant Commended 236
Portland, Me.—Intake and Supply Conduit *10
Portland—Supply Line 379
Port Washington, N. Y.—Sewage Treatment *183
Ranier, Minn.—Import Canadian Water 71
Salt Lake City, Utah—Pipe Lack Delays Sewage Treatment 226

Santa Paula, Calif.—Oil Contaminates Water Supply ... 291
Sheboygan, Wis.—Fluoridation ... 63
Sierra Madre, Calif.—Adopts Chlorination ... 410
South Dakota—Courses for W & S Operators ... 365
South Pittsburgh, Pa.—Water Rates ... Feb. 92A
Steubenville, Ohio—New Sewage Plant ... 361
Stuttgart, Germ.—Water from 16 Sources ... 460
Syracuse—NYS&IWA Spring Mtng. ... 404
Tampa, Fla.—Bulk Storage of Chlorine ... 60
Toronto, Ont.—Water and Sewerage Functions Combined ... July 82A
Ventura, Calif.—Water Reclamation ... 274
Waterbury, Conn.—Uses 1908 Outfall Sewer ... 282
Waterville, Me.—Improvements ... 72
Waukegan, Ill.—Weed Free Sludge Beds ... 284
Wisconsin PSC Ruling ... 146
Wheeling, W. Va.—Detergents ... 80
Graduate Research Assistantships ... 229
Great Lakes Large ... July 82A
Grit Handling Made Easy ... 500
Ground Water:
Chemical Cleaning of Wells ... 293
Mining ... 196

H

Head Loss Charts for Main Line Meters 150
History of Biological Sewage Treatment ... 28
Hydraulics ... 305
Hydrogen Sulfide Removal ... *66

I

Industrial Waste Instrumentation for Measurement and Control ... 358
Industrial Wastes:
Accomplishment and Possibilities ... *278
Algae Treat Radioactive Waste ... 260
Bituminous Pipe Manufacture ... *181
B.O.D.-O.C.D. Relationship in ... 362
Canning Plant ... 227
Citrus Waste Treatment Studies ... 30
Citrus Waste Treatment ... 123
Cost of Research ... 161
Cotton Bleachery Wastes ... *281
Dilution Factors ... *31
Effect of Increasing Production ... *280
Electroplating ... *181
Equipment for Biological Treatment ... *231
Flotation and Sedimentation ... 128
Forum ... *31
Future of Waterborne Wastes ... 466
Imhoff Tank Operation ... 55
Instrumentation ... 358
Land for Treatment Commandeered ... Feb. 95A
Milk Wastes ... *233
Niagara Frontier Industries ... *182
Nitrate Treatment of Canning Wastes ... 227
Oil Refinery ... *183
Organic Wastes ... *232
Organic Wastes ... 316
Paper ... *182
Paper Mill ... *233
Phenol Recovery ... *183
Pilot Plant Design ... 320
Pipe Mill ... 242
Plating Wastes ... *34
Pulping Liquor, Anaerobic Digestion of ... *281
Rate Formulas for ... 540
Regulations for Municipal Sewers *231
Research Costs ... 161
Screening Canning Plant Wastes ... 227
Steel Production ... *34
Tannery ... *42
Tax Relief in Sight ... 54
Treatment on Experimental Trickling Filters ... 316, 366
Treatment in Suspended Solids Reactor ... *232
Treatment, Rational Approach to ... *182
Woodpulp ... *35
Wool Scouring ... *42
Instrumentation ... *230
Instrumentation and Controls ... *112
Intake, River ... 108

J

Joint Committee Report on Bathing Places ... 324

L

Law, Notes on Water Works ... 480
Leakage Surveys ... 203
Legal Decisions (See Sewage Works or Water Works)
Loss of Head Meter ... 158

M

Mains:
Carrying Capacity, Loss of ... *145
Disinfection, Method for ... 143
Extension Costs Down ... 326
Extension Policy ... *67
Freezing as Shut-off Measure ... 261
Main Line Meters ... 150
Maintenance:
House Service Lines ... 248
Metering and Control Equipment ... *232
of Meters to Increase Revenue ... 521
Remodeling on Old Filter Plant ... 524
Safety ... 84
Trouble-Free Sewage Pump Controls ... 515
Well ... 103
Wire Inserts for Thread Repairs ... 445
Management:
House Service Line Ownership ... 248
Water Works ... 354
Management, Water Works Office ... 212
Meeting Reports (See Conventions)
Meters:
Electronic Tester for Large Meters 533
Loss of Head ... 158
Main Line ... 150
Maintenance to Increase Revenue ... 521
Meter Test Program ... 422
100 Per Cent Metering ... 292
Purchase ... 220
Reader's Hazards ... 192
Mobilization Readiness Plan ... 77
Morse, Chester—A Dedication ... 221
Multiple Water Treatment Units ... 249

N

Neutral Ortho-Tolidine ... 74
New Plant for Hospital Sewage ... 373
New Water Supply for Midland Texas ... 351
Nomograms:
Bearings ... 59
Notes on Water Works Law ... 480

O

Ocean Disposal of Sewage ... 172
Operation:
(Also see Geographical Locations)
of New Sewage Plant ... 555
of Sewage Microstrainer ... 356
of Small Waterworks ... 383
Instrumentation ... *230
Personnel Training ... *33
Safety ... 84
Water Systems, Small ... 271
Water Works, Small ... 219
Operating a Sewage Microstrainer ... 356
Ortho-Tolidine Method, Neutral ... 74
Oxidation Rates, Aerobic ... 81
Oxidation-Reduction Potential ... 185
Oxygen Transfer in Aeration Systems ... *92

P

Pearth Scum Control System ... *90
PeriFilter System ... 249
Personnel Training—With Filmstrips ... 241
Pipe:
Concrete Pipe Improvements ... *232
Jointing Compounds for Sewers ... *89
Mechanical Joint Pipe ... *112
Pinetree Pipeline in Georgia ... 226
Plastic ... 11*, 12*, 112*
Plastic—Market Expands ... 137
Sewer Cleaning Ball in Action ... 490
Sweating Insulation ... 202
Welding Joints ... June 88A
Pitometer Surveys ... 203
Pittsburgh's Treatment Plant for Design ... 236
Planning Treatment Works ... 327
Plant Construction:
(Also see Geographical Locations)
Remodeling an Old Filter Plant ... 524
Plant Operation:
(Also see Geographical Locations)
Activated Sludge Treatment ... 288
Cleaned Filter Cloth Lasts Longer 239
Chemical Feeders ... 254
Detergents ... 330
Forum ... *33
Imhoff Tanks ... 55
Variable Speed Drive ... 234
Siphons in Pumping Plants ... 477
Plexiglas Sludge Bed Greenhouse ... 161
Pollution in a Tidal Stream ... 507
Portland Adds Another Supply Line ... 379
Publications:
Abstracts on Corrosion ... 385
Air Pollution—M.C.A. ... 35
Chem. Characteristics of Pa. Surface Waters ... 375
Dolomitric Lime for Waste Treatment ... 489
Engineering Contracts and Specifications ... 265
"How Green Is Your Garden?" ... 304
Hydraulic Research in U. S. ... 382
Public Health, Training Filmstrips ... 241
Public Relations:
If I Were a City Engineer ... 446
Street Signs at Excavations ... 131
Pumps:
Casings ... 437
Centrifugal ... 258, 347, 437, 536
Centrifugal—Designing, Building, and Maintaining ... 347, 437, 536
Flood Control ... 162
Impellers ... 536
Industrial Applications ... 162
Irrigation ... 162
Operation ... 162
Performance ... 258
Replacing a - - ... 442
Sewage ... 162
Siphons in Pumping Plants ... 477
System Head Curves ... 14
Trouble-free Sewage Pump Controls ... 515
Types ... 162, 347, 485
Water ... 162
Purdue's San. Engr. News:
Purdue's Sanitary Engineering News ... Feb. 94A, Apr. 95A, May 94A, July 84A, Sept. 100A, Oct. 105A

Q

Quality Control of Watersheds ... 312
"Quick Chlorine Dioxide" ... 458

R

Radioactive Waste Treatment ... 260
Rain Making ... 107
Rainfall and Runoff ... 275

Rates:
Low Water Rate Curse ... 94
Reduction—Cedarburg, Wis. ... 59
Rising ... Feb. 92A
Water ... *68
Water—In Wisconsin ... Mar. 84A
Reorganization and Reconstruction—Small Water Works ... 219
Report from Abroad:
Activated Sludge ... 245
Alternating Double Filtration ... 245
British Inst. 1954 Sewage Purif. Conf. ... 418
Detergents ... 135, 330
Water Pollution Research ... 552
Research:
Activated Sludge Treatment ... *280
Cloud Seeding ... 192, 196
Hydraulic Test Laboratory, Worthington ... 247
Industrial Pollution ... *280
on Chemicals Considered Possible Cancer Sources ... 436
Role of University ... *279
Sewage ... 138
Trends and Needs in Waste Treatment ... *279
Water Pollution ... 552
Reservoirs:
Capacity, Doubling ... *10
Evaporation ... 207
Retirements:
Cox, C. R.—N. Y. State Health Dept. ... 263
Donaldson, Wellington—N. Y. C. Sewage Dept. ... 407
Drake, Chester—from Pittsburgh Water Plant ... 499
Wright, Edward—from Mass. Dept. of Health ... 489
River Intake ... 108
Rivers That Flow Uphill ... 162

S

Safety:
Program ... *67
Radio, Two-Way, Saves Life ... 298
Removal of Radioactivity—filler ... 361
Resuscitation Method ... 169
Sewage Works ... 84
Sand in Water Systems ... 114
Screen Chamber Design ... 189
Scum Control in Digesters ... *90
Sea Water Conversion ... May 94A
Sea Water Desalting ... *67
Septic Tank Efficiency ... 132
Sewage:
(Also see Sewage Treatment, Sewage Works, Sewage Works Practices)
Controlled Humus Production by Sludge Digestion ... 503
Financing Municipal ... 430
Future of Waterborne Wastes ... 466
Research ... 138
Plant for Hospital ... 378
Reuse for Chemical Plant Water ... 175
Syndets ... 286
Sewage Treatment:
Activated Aeration ... *184
Activated Sludge Treatment ... 288
Biological Processes, History of ... 28
B.O.D.-O.C.D. Relationship ... 362
Cost of Disposal ... *232
Crop Irrigation ... *35
Frothing Control ... *34
Engineering Economics—Editorial ... 44
Imhoff Tank Operation ... 55
Operation Headaches ... *233
Operation of Microstrainer ... 356
Practices in Germany ... 176
600 ft. Below Sea-Level ... 408
Septic Tank Efficiency ... 132
Syndets in Municipal Sewage ... 286
Sewage Works:
Cincinnati's New ... 423
Contracts Increase ... 93
Thoughts on Equipment (Dear Bill Letter) ... 471
Expenditure for 2nd Quarter of '53 ... 54
Financing Treatment Works ... 327
Grit Handling Made Easy ... 500
Jersey City Sewage Trial Ended ... June 84A
Landscaping ... *33
Operating a New Sewage Plant ... 555
Pittsburgh's Plant Commended for Design ... 235
Planning for Fringe Areas ... *89
Safety—Employees in Plants—III ... 84
Screen Chamber Design ... 189
Trouble-Free Sewage Pump Controls ... 515
Waterville, Me., Improvements ... 72
Sewage Works Practices:
Activated Sludge Treatment ... 288
Gas from Sewage Sludge ... 512
Imhoff Tank Operation ... 55
Trickling Filter Operation ... 193
Sludge Digestion ... 376
Sewers:
Jointing ... *40
Maintenance ... *90
Measurement of Dry Weather Flow ... 326
Outfall—Waterbury, Conn. ... 282
Sewer Cleaning Ball in Action ... 490
Standards ... *184
Sewer Service Charges:
Bayonne, N. J. ... 220
Financing Municipal Sewerage ... 430
Rate Formulas for Industrial Wastes ... 540
Shaped Wire ... 170
Short Schools:
Cincinnati, O.—U.S.P.H.S. in environmental Sanit. ... 429
Courses in Radioactivity ... 411
Expenses Deductible from Income Tax ... 44
Germany—Sewage and Stream Biology ... 27
Rutgers U.—Air Pollution Control ... 459
S. Dakota—W. & S. Operators ... 365
V. P. I.—Summer Prog. in San. Eng. ... 372
Washington State College—Corrosion ... 19
Sludge:
Bed Glassover with Plexiglas ... 161
Digestion (See Sludge Digestion)
Digester Liming ... *41
Gas from Sewage Sludge ... 512
Weed-Free Beds ... 284
Sludge Digestion:
Accelerated Process ... *91
Controlled Humus Production by Sludge Digestion ... 503
High Rate ... *91
Scum Control ... *90
Sludge Digestion ... 376
Small Water Systems ... 271
Storage of Chlorine, Bulk ... 60
Storm Water Formula, Modified ... 275
Storm Water Runoff, Formula for ... 275
Stream Pollution:
Bathing Places ... 324
Canning Plant Waste ... 227
Control in N. Y. State ... *181
Control Research, Cost of ... 161
Cotton Bleachery Wastes ... *281
Dilution Factors ... *32
Detergents ... 330
In a Tidal Stream ... 507
Legal Aspects ... *281
Missouri River ... 263
Paper Mill ... *233
Pipe Mill Waste ... 242
Potomac River Clean-Up ... 260
Research In Industrial Pollution ... *280
Sanitation Problem ... *280
Stabilization of Polluted Waters ... 548
Standards ... *32
Usage Criteria ... *31
Water Pollution Research ... 552
Water Pollution's Rule of Three ... 412
Watershed Sanitation ... *111
Suggestion Box for Small Plant ... 192
Surface Waters of Kentucky ... May 91A
Syndets ... 330
Syndets in Municipal Sewage ... 286
Syndets—Situation Abroad ... 135
System Head Curves and Pumps ... 14

T

Tastes and Odors:
Actinomycetes ... 208
Concepts, Newer—Part 2 ... 208
Technical Digests:
Digester Operation Problems ... 559
Preventing Water Shortages ... 557
Ton-Containers, Chlorine ... 20
Training—With Filmstrips ... 241
Treating Organic Wastes on Experimental Trickling Filters ... 316, 366
Trickling Filters:
Alternating—Double Filtration ... 245
Biological Considerations in ... 368
Design ... 316
Experimental—Operating Considerations ... 366
Operation ... 193
Organic Wastes ... 316, 366
Turbidimetric Sulfate Determination ... 462

U

U. S. Pub. Health Service ... 54, Mar. 84A

V

Valves for Water Works Application ... 495
Vacuum Filter Cloth Cleaning ... 239
Variable Speed Drive ... 234
Viruses and Bacteria, Chlorine Effects on ... *13
Venturi Meters vs. Orifice Meters ... 150
Vitamin B-12 from Milorganite ... 134

W

Wash Water Measurement in Filters ... 78
Waste Water Surveys ... 203
Water:
Pollution (See Stream Pollution)
Future of Waterborne Wastes ... 466
New "Clean Waters" Film ... 459
Reclamation Reduces Plant's Water Make-Up ... 492
Sea Water Distillation for Industrial Use ... 457
Water Pollution's Rule of Three ... 412
Rates (See Rates)
Quality Control ... 312
Water Intake Crib ... 264
Water Reclamation ... 274
Watershed Sanitation ... *111
Water Supply:
Bahamas Island ... *65
County System ... *66
Ground Water Mining ... 196
Havana, Cuba ... *65
Hydrogen Sulfide Removal ... *66
Intake Crib—Cleveland, Ohio ... 264
Korea Field Forces ... 218
for Midland, Texas ... 351
Pollution ... *13
Preventing Water Shortages ... 557
Quality ... *111
Reclamation ... 492
Sea Water, Desalting ... *67
Shortage Causes ... 270
Source—Well Location and Construction ... 23, 69
Statistical Summary—USPHS ... Mar. 84A
Stuttgart—from 16 Sources ... 460
Watershed Sanitation ... *111
Watershed Quality Control ... 312
Yield Increased by Thinning Trees ... 63
Water Treatment:
Fluoridation (See Fluoridation)
Detergent Effects on ... 80
Improved Filtrability Test ... 517
Multiple Units ... 249